

## CLAIMS:

What is claimed is:

1 *See*  
2 *Q1* 1. A method in a data processing system for simulating  
3 a hardware fault occurring on an expansion card, said  
4 expansion card coupled to a processing unit in said  
5 system utilizing a bus, said method comprising the steps  
6 of:

7 specifying said hardware fault to simulate;

8 determining a signal to output utilizing said bus to  
9 simulate said hardware fault occurring on said expansion  
10 card; and

11 outputting said signal during operation of said  
12 expansion card, wherein said hardware fault occurring on  
13 said expansion card is simulated.

14 2. The method according to claim 1, wherein said step  
15 of determining a signal to output utilizing said bus to  
16 simulate said hardware fault occurring on said expansion  
17 card further comprises the step of determining a signal  
18 to output utilizing a PCI bus to simulate said hardware  
19 fault occurring on said expansion card.

20 *See*  
21 *Q2* 3. The method according to claim 1, further comprising  
22 the step of prior to outputting said signal, determining  
23 a proper response of said system to said hardware fault.

1 4. The method according to claim 3, further comprising  
2 the step of in response to outputting said signal,  
3 determining if said system responded properly to said  
4 hardware fault.

1 5. The method according to claim 4, further comprising  
2 the step of determining a line of said bus which is  
3 associated with said hardware fault.

1 *See b*  
2 *a3* 6. The method according to claim 5, further comprising  
3 the step of outputting said signal during operation of  
4 said expansion card utilizing said line of said bus.

1 7. The method according to claim 6, further comprising  
2 the step of determining a test voltage level for said  
3 signal, wherein said test voltage level is a voltage  
4 level required to simulate said hardware fault.

1 8. The method according to claim 7, further comprising  
2 the step of outputting said signal having said test  
3 voltage level during operation of said expansion card  
4 utilizing said line of said bus.

1 9. The method according to claim 8, wherein said step  
2 of determining a signal to output utilizing said bus to  
3 simulate said hardware fault occurring on said expansion  
4 card further comprises the step of determining a signal  
5 to output utilizing a PCI bus to simulate said hardware  
6 fault occurring on said expansion card.

Sub A4  
10. A data processing system for simulating a hardware fault occurring on an expansion card, said expansion card coupled to a processing unit in said system utilizing a bus, comprising:

means for specifying said hardware fault to simulate;

means for determining a signal to output utilizing said bus to simulate said hardware fault occurring on said expansion card; and

means for outputting said signal during operation of said expansion card, wherein said hardware fault occurring on said expansion card is simulated.

11. The method according to claim 10, wherein said means for determining a signal to output utilizing said bus to simulate said hardware fault occurring on said expansion card further comprises means for determining a signal to output utilizing a PCI bus to simulate said hardware fault occurring on said expansion card.

Sub A5  
12. The system according to claim 10, further comprising means prior to outputting said signal, for determining a proper response of said system to said hardware fault.

13. The system according to claim 12, further comprising means responsive to outputting said signal, for determining if said system responded properly to said hardware fault.

1 14. The system according to claim 13, further comprising  
2 means for determining a line of said bus which is  
3 associated with said hardware fault.

1 15. The system according to claim 14, further comprising  
2 means for outputting said signal during operation of said  
3 expansion card utilizing said line of said bus.

1 16. The system according to claim 15, further comprising  
2 means for determining a test voltage level for said  
3 signal, wherein said test voltage level is a voltage  
4 level required to simulate said hardware fault.

1 17. The system according to claim 16, further comprising  
2 means for outputting said signal having said test voltage  
3 level during operation of said expansion card utilizing  
4 said line of said bus.

1 18. The system according to claim 17, wherein said means  
2 for determining a signal to output utilizing said bus to  
3 simulate said hardware fault occurring on said expansion  
4 card further comprises means for determining a signal to  
5 output utilizing a PCI bus to simulate said hardware  
6 fault occurring on said expansion card.